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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/806,420

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Dong-yun Shin

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EXAMINER

RIYAMI, ABDULLA A

ART UNIT

PAPER NUMBER

2416

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/806,420	Applicant(s) SHIN ET AL.	
	Examiner ABDULLAH RIYAMI	Art Unit 2416	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 26 February 2009.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-16 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-16 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. This is a response to an amendment filed on 02/26/2009.
2. Claims 1-16 remain pending in the application.
3. Claims 1 and 10 have been amended. No claims have been canceled.
4. No new claims have been added.

Response to Arguments

5. Applicant's arguments with respect to claims 1-16 have been considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.

4. Considering objective evidence present in the application indicating obviousness or nonobviousness.
8. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).
9. Claims 1-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Venkitaraman et al. (US 2003/0161287 B2) in view of Ueno (US 2002/0126665 A1).

As per claim 1, Venkitaraman et al. discloses a wireless local area network system (see figure 1, network 100), comprising: a gateway (see figure 1, block 124, home agent) performing functions of a home agent in a mobile wireless communication environment (see paragraph 43, lines 10-15, home agent receives binding updates and stores information and prefixes) and sending prefix information (see paragraph 43, lines 10-15, updating and sending care-of-address and prefixes);

and one or more access points (see figure 1, router 112, paragraph 19, line 3, mobile router), each access point allocating an Internet Protocol (IP) address to a mobile host in a management range thereof by using the prefix information of the gateway (see paragraph 43, lines 1-15, and paragraph 45, lines 7-15 the mobile router advertises prefix info of the subnet to the mobile node),

wherein each access point produces and sends a Binding Update list (see paragraph 43, line 13, binding updates) corresponding to the mobile host to the gateway (see paragraph 43, lines 10-15, home agent, mobile node and mobile router), wherein when said mobile host moves into a range of a different access point associated with a new access router (see figure 9, mobile node moves from router 112 to a different router 118, see paragraph 45, lines 1-10, mobile node moves from site 1 to site 2), said mobile host retains the prefix information of the gateway (see paragraphs 43, lines 15-17 CN retains entry associated with mobile node and paragraph 45, lines 10-15, same mobile node address but different care of address, mobile node sends binding updates), wherein the new access router generates an access router advertisement message based on a prefix advertisement message received from the gateway and sends the generated access router advertisement message to said different access point (see paragraph 45, lines 1-10, the mobile node will receive a router advertisement from the visited router that identifies the subnet prefix of the visited router, see paragraph 18, lines 1-10, base stations for exchanging information), wherein the mobile host receives the prefix information of the gateway and retains the received prefix information (see paragraph 45, lines 10-15, same mobile node address but different care of address, mobile node sends binding updates).

Venkitaraman does not expressly disclose wherein said different access point extracts the prefix information of the gateway based on the access router advertisement and transfers the extracted prefix information to the mobile host.

Ueno discloses the different access point extracts the prefix information of the gateway based on the access router advertisement and transfers the extracted prefix information to the mobile host (see figure 2, agent advertisement filtering circuit 3 in base station, see figure 3, mobile terminal agent advertisement reception circuit 10 in mobile terminal, see paragraph 23, lines 1-7, each of the base stations stores agent advertisements transmitted from the agents, see paragraph 25, lines 5-9, the agent advertisement filtering circuit filters signals on the network and extracts an agent advertisement frame, see paragraph 32, lines 1-10, IP address of the agent).

Venkitaraman and Ueno are analogous art since they are from the same field of endeavor of having using prefixes and sending binding updates to agents.

At the time of the invention, it would have been obvious to one of ordinary skill in the art to use Ueno's teaching of using the different access point extracts the prefix information of the gateway based on the access router advertisement and transfers the extracted prefix information to the mobile host (see figure 2, agent advertisement filtering circuit 3 in base station, see figure 3, mobile terminal agent advertisement reception circuit 10 in mobile terminal, see paragraph 23, lines 1-7, each of the base stations stores agent advertisements transmitted from the agents, see paragraph 25, lines 5-9, the agent advertisement filtering circuit filters signals on the network and extracts an agent advertisement frame, see paragraph 32, lines 1-10, IP address of the agent) in Venkitaraman's wireless local area network system (see figure 1, network 100).

The motivation would have been to provide a wireless LAN system and a wireless LAN system control method that can shorten the time period during which a base station is switched to another base station (see paragraph 10, Ueno).

As per claim 2, Venkitaraman et al. discloses a wireless local area network system (see figure 1), wherein when a packet is sent from a correspondent node (see figure 1, CN 126) to the mobile host (see figure 1, mobile node 116) the gateway encapsulates a header portion of the packet with a source address and a destination address (see paragraph 36, lines 1-12, encapsulates the packet), and an access point corresponding to the destination address decapsulates the encapsulated packet sent from the gateway (see paragraph 36, lines 1-12, decapsulates the packet).

As per claim 3, Venkitaraman et al. discloses a wireless local area network system (see figure 1), wherein when a packet is sent from the mobile host to a correspondent node (see paragraph 36, figures 1-10 shows all the scenarios of packet communications), the access point defining the management range of the mobile host encapsulates a header portion of the packet with a source address and a destination address (see paragraph 36, lines 1-12, encapsulates the packet) and sends the encapsulated packet (see paragraph 36, lines 1-12, encapsulates the packet).

As per claim 4, Venkitaraman et al. discloses a wireless local area network system (see figure 1), wherein the gateway (see figure 1) manages one or more access routers (see figure 1, routers 120 118, 112, base radio 104), each access router manages one or more access points (see paragraph 36, (see figure 1, routers 120 118,

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112, base radio 104), and each access point manages one or more mobile hosts (see paragraph 19, line 4, one or more network nodes).

As per claim 5, Venkitaraman et al. discloses a wireless local area network system (see figure 1), wherein the IP addresses for the mobile hosts have the same prefix information (see paragraphs 43, lines 15-17 CN retains entry associated with mobile node and paragraph 45, lines 10-15, same mobile node address but different care of address).

As per claim 6, Venkitaraman et al. discloses a wireless local area network system (see figure 1), wherein the IP addresses for an access point serves as a Care-of Address (CoA) for each mobile host within the management range of the access point (see paragraphs 43, lines 15-17 CN retains entry associated with mobile node and paragraph 45, lines 10-15, same mobile node address but different care of address).

As per claim 7, Venkitaraman et al. discloses a wireless local area network system (see figure 1), wherein each access point includes: an IP address generation unit (see (see paragraph 43, lines 10-15, updating and sending care-of-address and prefixes, paragraph 25, 36 and figure 1) for generating the IP address for the mobile host in the management range of the access point by combining the prefix information and a MAC address of the mobile host (see (see paragraph 43, lines 10-15, updating and sending care-of-address and prefixes); a binding cache for storing information (see paragraph 43, line 13, binding update) on the generated IP address and corresponding mobile host (see paragraph 43, figure 1-10); and a Binding Update (BU) transmission

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unit (see paragraph 43, line 13 binding update) for sending to the gateway the produced Binding Update list for the mobile host (see paragraph 43, binding update).

As per claim 8, Venkitaraman et al. discloses a wireless local area network system (see figure 1), wherein each access point further includes a decapsulation unit (see paragraph 36, lines 1-12, decapsulates the packet) for decapsulating a source address and a destination address that are encapsulated with a header portion of a packet sent from a correspondent node unit (see paragraph 36, lines 1-12, decapsulates the packet, figure 1-10, discloses all packet communication scenarios).

As per claim 9, Venkitaraman et al. discloses a wireless local area network system (see figure 1), wherein each access point further includes an encapsulation unit (see paragraph 36, lines 1-12, encapsulates the packet) for encapsulating a header portion of a packet to be sent to a correspondent node (see figure 1, CN 126) with a source address and a destination address (see paragraph 36, lines 1-12, encapsulates the packet).

As per claim 10, Venkitaraman et al. discloses an operation method for a wireless local area network system (see figure 1, block 124, home agent), comprising: sending prefix information of a gateway (see paragraph 43, lines 10-15, home agent receives binding updates and stores information and prefixes), by the gateway (see figure 1, block 124, home agent), according to a request of a mobile host (see paragraph 43, lines 10-15, updating and sending care-of-address and prefixes) wherein the gateway performs functions of a home agent in a mobile wireless communication

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environment (see paragraph 43, lines 10-15, home agent receives binding updates and stores information and prefixes);

and allocating an Internet Protocol (IP) address to the mobile host by using the prefix information (see paragraph 43, lines 1-15, and paragraph 45, lines 7-15 the mobile router advertises prefix info of the subnet to the mobile node); associating the mobile host with an access point having a management range within which the mobile host is located (see paragraph 43, lines 10-15, home agent receives binding updates and stores information and prefixes, paragraph 45, lines 7-15 the mobile router advertises prefix info of the subnet to the mobile node);

producing a Binding Update list for the associated mobile host (see paragraph 43, line 13, binding updates); and sending the Binding Update list to the gateway (see paragraph 43, line 13, binding updates), wherein when said mobile host moves into a range of a different access point associated with a new access router (see figure 9, mobile node moves from router 112 to a different router 118, see paragraph 45, lines 1-10, mobile node moves from site 1 to site 2), said mobile host retains the prefix information of the gateway (see paragraphs 43, lines 15-17 CN retains entry associated with mobile node and paragraph 45, lines 10-15, same mobile node address but different care of address, mobile node sends binding updates),

wherein the new access router generates an access router advertisement message based on a prefix advertisement message received from the gateway and sends the generated access router advertisement message to said different access point (see paragraph 45, lines 1-10, the mobile node will receive a router advertisement

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from the visited router that identifies the subnet prefix of the visited router, see paragraph 18, lines 1-10, base stations for exchanging information), wherein the mobile host receives the prefix information of the gateway and retains the received prefix information (see paragraph 45, lines 10-15, same mobile node address but different care of address, mobile node sends binding updates).

Venkitaraman does not expressly disclose wherein said different access point extracts the prefix information of the gateway based on the access router advertisement and transfers the extracted prefix information to the mobile host.

Ueno discloses the different access point extracts the prefix information of the gateway based on the access router advertisement and transfers the extracted prefix information to the mobile host (see figure 2, agent advertisement filtering circuit 3 in base station, see figure 3, mobile terminal agent advertisement reception circuit 10 in mobile terminal, see paragraph 23, lines 1-7, each of the base stations stores agent advertisements transmitted from the agents, see paragraph 25, lines 5-9, the agent advertisement filtering circuit filters signals on the network and extracts an agent advertisement frame, see paragraph 32, lines 1-10, IP address of the agent).

Venkitaraman and Ueno are analogous art since they are from the same field of endeavor of having using prefixes and sending binding updates to agents.

At the time of the invention, it would have been obvious to one of ordinary skill in the art to use Ueno's teaching of using the different access point extracts the prefix information of the gateway based on the access router advertisement and transfers the extracted prefix information to the mobile host (see figure 2, agent advertisement

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filtering circuit 3 in base station, see figure 3, mobile terminal agent advertisement reception circuit 10 in mobile terminal, see paragraph 23, lines 1-7, each of the base stations stores agent advertisements transmitted from the agents, see paragraph 25, lines 5-9, the agent advertisement filtering circuit filters signals on the network and extracts an agent advertisement frame, see paragraph 32, lines 1-10, IP address of the agent) in Venkitaraman's wireless local area network system and method (see figure 1, network 100).

The motivation would have been to provide a wireless LAN system and a wireless LAN system control method that can shorten the time period during which a base station is switched to another base station (see paragraph 10, Ueno).

As per claim 11, Venkitaraman et al. discloses an operation method for a wireless local area network system (see figure 1), comprising when a packet is sent from a correspondent node (see figure 1, CN 126) to the mobile host (see figure 1, mobile node 116), encapsulating a header portion of the packet at the gateway with a source address and a destination address (see paragraph 36, lines 1-12, encapsulates the packet) and sending the encapsulated packet address (see paragraph 36, lines 1-12, encapsulates the packet); and decapsulating (see paragraph 36, lines 1-12, decapsulates the packet) a header portion from the encapsulated packet sent from the gateway (see paragraph 36, lines 1-12, decapsulates the packet).

As per claim 12, Venkitaraman et al. discloses an operation method for a wireless local area network system (see figure 1), comprising when a packet (see paragraph 36, figures 1-10) is sent from the mobile host to a correspondent node (see

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paragraph 36, figures 1-10 shows all the scenarios of packet communications), encapsulating a header portion of the packet at the access point with a source address and a destination address (see paragraph 36, lines 1-12, encapsulates the packet) and sending the encapsulated packet (see paragraph 36, lines 1-12, encapsulates the packet).

As per claim 13, Venkitaraman et al. discloses an operation method for a wireless local area network system (see figure 1), wherein the gateway (see figure 1) manages one or more access routers (see figure 1, routers 120 118, 112, base radio 104), each access router manages one or more access points (see figure 1, routers 120 118, 112, base radio 104), and each access point manages one or more mobile hosts (see paragraph 19, line 4, one or more network nodes).

As per claim 14, Venkitaraman et al. discloses an operation method for a wireless local area network system, wherein the IP addresses for the mobile hosts have the same prefix information (see paragraphs 43, lines 15-17 CN retains entry associated with mobile node and paragraph 45, lines 10-15, same mobile node address but different care of address).

As per claim 15, Venkitaraman et al. discloses an operation method for a wireless local area network system (see figure 1), wherein the IP addresses for an access point serves as a Care-of Address (CoA) for each mobile host (see figure 1) within the management range of the access point see paragraphs 43, lines 15-17 CN retains entry associated with mobile node and paragraph 45, lines 10-15, same mobile node address but different care of address).

As per claim 16, Venkitaraman et al. discloses an operation method for a wireless local area network system (see paragraph 43), wherein the mobile host association operation (see paragraph 43) includes: generating the IP address for the mobile host (see paragraph 43) in the management range of the access point by combining the prefix information and a MAC address of the mobile host (see paragraph 43); storing information on the generated IP address and the corresponding mobile host (see paragraph 43 figures 1-10); producing a Binding Update list (see paragraph 43) of the associated mobile host; and sending to the gateway the produced Binding Update list for the mobile host (see paragraph 43, line 13, paragraph 45, lines 1-13, binding updates communicated between mobile host router agent and corresponding node).

Conclusion

10. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. See form 892.

6. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any

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extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to ABDULLAH RIYAMI whose telephone number is (571)270-3119. The examiner can normally be reached on Monday through Thursday 8am-5pm EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Aung Moe can be reached on (571) 272-7314. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Aung S. Moe/
Supervisory Patent Examiner, Art Unit 2416

/Abdullah Riyami/
Examiner, Art Unit 2416

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